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| Descrizione fisica | 1 online resource (VI, 549 p. 159 illus., 89 illus. in color.) |
| Collana | Advances in Biochemical Engineering/Biotechnology, , 0724-6145 ; ; 166 |
| Disciplina | 660.6 |
| Soggetti | Biotechnology Chemical engineering Renewable energy resources Industrial Chemistry/Chemical Engineering Renewable and Green Energy |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Includes Index. |
| Nota di contenuto | From the Contents: Lignocellulose-Biorefinery: Organosolv-Processes -- Syngas-Biorefinery: Biomass-Gasification -- Syngas-Biorefinery: Syngas-Utilization -- Algal-Biorefinery -- Products: Lignin -- Biogas-Biorefinery: Syngas-Utilization -- Biomass Resources: Agriculture. |
| Sommario/riassunto | This book offers a comprehensive review on biomass resources, examples of biorefineries and corresponding products. The first part of this book covers topics such as different biorefinery resources from agriculture, wood processing residues and transport logistics of plant biomass. In the second part, expert contributors present biorefinery concepts of different biomass feedstocks, including vegetable-oils, sugarcane, starch, lignocellulose and microalgae. Readers will find here a summary of the syngas utilization and the bio-oil characterization and potential use as an alternative renewable fuel and source for chemical feedstocks. Particular attention is also given to the anaerobic digestion-based and Organosolv biorefineries. The last part of the book examines relevant products and components such as alcohols, hydrocarbons, bioplastics and lignin, and offers a sustainability evaluation of biorefineries. |

